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| APPLICATION NO.                                      | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO |  |
|--|-------------|----------------------|-------------------------|-----------------|--|
| 09/264,501   | 03/08/1999  | ROGER PANICACCI      | M4065.0842/P842         | 3217            |  |
| 7590 06/29/2004                                      |             |                      | EXAM                    | EXAMINER        |  |
| Micron Technology, Inc.                              |             |                      | WU, DO                  | WU, DOROTHY     |  |
| c/o Tom D'Amico Dickstein, Shapiro, Moran & Oshinsky |             |                      | ART UNIT                | PAPER NUMBER    |  |
| 2101 L Street, NW                                    |             |                      | 2615                    |                 |  |
| Washington, DC 20037-1526                            |             |                      | DATE MAILED: 06/29/2004 | 4               |  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|   | Application No.              | Applicant(s)  |  |  |  |  |
|---|------------------------------|---|--|--|--|--|
| Office Action Summany   | 09/264,501                   | PANICACCI ET AL.  |  |  |  |  |
| Office Action Summary   | Examiner                     | Art Unit  |  |  |  |  |
| The MAILING DATE of this communication  | Dorothy Wu                   | 2697  |  |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply  |                              |   |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).  Status |                              |   |  |  |  |  |
| 1) Responsive to communication(s) filed on  |                              |   |  |  |  |  |
| ` <u> </u>  | ·<br>is action is non-final. |   |  |  |  |  |
| , — , — , — , — , — , — , — , — , — , —   |                              | ratters prosecution as to the morits is                             |  |  |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims   |                              |   |  |  |  |  |
| 4)⊠ Claim(s) <u>11,14-16,24,25 and 28-30</u> is/are pending in the application.   |                              |   |  |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.  |                              |   |  |  |  |  |
| 5) Claim(s) is/are allowed.   |                              |   |  |  |  |  |
| 6)⊠ Claim(s) <u>24,25 and 28-30</u> is/are rejected.  |                              |   |  |  |  |  |
| 7)⊠ Claim(s) <u>11,14-16</u> is/are objected to.  |                              |   |  |  |  |  |
| 8) Claim(s) are subject to restriction and/or election requirement.   |                              |   |  |  |  |  |
| Application Papers  |                              |   |  |  |  |  |
| 9)☐ The specification is objected to by the Examiner.   |                              |   |  |  |  |  |
| 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  |                              |   |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).   |                              |   |  |  |  |  |
| 11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved by the Examiner.  |                              |   |  |  |  |  |
| If approved, corrected drawings are required in reply to this Office action.  |                              |   |  |  |  |  |
| 12) The oath or declaration is objected to by the Examiner.   |                              |   |  |  |  |  |
| Priority under 35 U.S.C. §§ 119 and 120   |                              |   |  |  |  |  |
| 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).   |                              |   |  |  |  |  |
| a) All b) Some * c) None of:  |                              |   |  |  |  |  |
| 1. Certified copies of the priority documents have been received.   |                              |   |  |  |  |  |
| 2. Certified copies of the priority documents have been received in Application No  |                              |   |  |  |  |  |
| <ul> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>   |                              |   |  |  |  |  |
| 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  |                              |   |  |  |  |  |
| a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.   |                              |   |  |  |  |  |
| Attachment(s)   |                              |   |  |  |  |  |
| 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s)   | 5) Notice of                 | Summary (PTO-413) Paper No(s) Informal Patent Application (PTO-152) |  |  |  |  |

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### **DETAILED ACTION**

## Response to Arguments

- 1. Acknowledgement is made of the amendments to the specification, filed on April 8, 2003. All objections to the specification are hereby withdrawn.
- 2. On page 3 of the amendment, the applicant states that claims 1-10, 12-13, 17-23, and 26-27 have been canceled, and claims 11, 14-16, 24, 28-37 have been rewritten. However, on page 13, the applicant then states that claims 1-10, 12-13, 17-23, 26-27, 31-37 have been canceled, and claims 11, 14-16, 24, 28-30 have been rewritten. Furthermore, the amendment contains rewritten claims 11, 14-16, 24, 28-30. The applicant is expected to clarify which claims are to be canceled or rewritten.

## Claim Objections

- 3. Claim 15 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 14. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).
- 4. Claims 11, 14-16, 24, 28-30 are objected to because of the following informalities.

  Regarding claims 11, 14-16, the claims state the limitation "pixel in a second column," instead of "pixels in a second column." Regarding claims 24, 28-30, the claims repeatedly state "fro" instead of "for." Appropriate correction is required.

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# Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 24, 28-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 24, 28-30, the claims first state the limitation of "an operational amplifier-based charge sensing circuit that selectively provides an *amplifier* differential output signal," and then state the limitation "the *amplified* differential output signal." There is insufficient antecedent basis for this limitation in the claim.

The claims also state "an analog-to-digital *converter* for converting the differential output... said analog-to-digital *converting* including a comparator and a binary-scaled capacitor network." There is insufficient antecedent basis for this limitation in the claim.

The claims also state "the capacitor in the first network share a common node coupled to a first input of the comparator." As the network comprises multiple capacitors, it is unclear which capacitor the claim is referring to.

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#### Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dorothy Wu whose telephone number is 703-305-8412. The examiner can normally be reached on Monday-Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached on 703-305-4863.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC 20231

Or faxed to:

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703-872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is 703-306-0377.

DW

June 16, 2003

**Primary Examiner** 

Technology Center 2600